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signature

10 October 2017

Chairman Ajit Pai
Commissioner Mignon Clyburn
Commissioner Michael O’Rielly
Commissioner Brendan Carr
Commissioner Jessica Rosenworcel
c/o Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: ET Docket No. 14-165 and GN Docket Nos. 12-268 and 14-166 Via Electronic Filing

Dear Chairman Pai, Commissioner Clyburn, Commissioner O’Rielly, Commissioner Carr, Commissioner Rosenworcel, and Ms. Dortch:

I’m writing to you on behalf of Signature Theatre, located in Arlington, VA. We are a Tony Award-winning company and a nationally known nonprofit professional theater that produces contemporary musicals and plays, reinvents classic musicals, develops new work, and reaches its community through engaging educational and outreach opportunities. Signature combines high quality productions with intimate playing spaces and is an industry leader in developing and producing new work. Since its inception, the Theatre has produced 55 world premieres from 23 commissioned artists and is home to the largest musical theater commissioning and development program in the United States. Currently, we provide over 500 performances per year to 100,000 audience members and education programs to more than 10,000 students.

I wanted to write to share concerns that we have about available spectrum and protection for our wireless microphones and backstage communications devices. We strongly support the Commission’s proposal to expand Part 74 license eligibility to include persons and organizations that can demonstrate the need for professional, high-quality audio and have the capability of providing it through conscientious use of wireless microphones. We support and endorse the Comments filed in these dockets by The Performing Arts Wireless Microphone Working Group.

Professional performing arts organizations hold thousands of performances each year, and wireless microphones are essential to producing high-quality performances while mitigating significant public safety concerns. Professional wireless capability, with successful interference protection, is essential to our sector.

At Signature, we utilize a wide range of devices in both the UHF TV bands (both low and high channels), and other, higher bands. Primarily, we're using wireless microphones for performers in the Low UHF range, but we also have in-ear monitors in that same range, wireless intercom systems that use both the Low and High UHF ranges, serial networks in the 2.4 GHz band, and video transmission in the 5 GHz band. Every performance we hold depends on various combination of these services. At a minimum, all small play will probably use six discreet frequencies. On average, we're probably looking at 29 frequencies, with 50 frequencies across two simultaneous productions being not uncommon.

All our equipment is owned by the theater with expected duty cycles of ten to fifteen years depending on the device. When we were forced to vacate the 700mhz spectrum, we were left with no choice but to spend \$57,000 to overhaul all our microphones. We employ three full time staff members, all of whom took degrees in audio engineering and reinforcement and who represent years of professional experience, to manage all our reinforcement, including meticulous tuning of our microphones. Each microphone has 25 MHz of operating range, tunable in 1 KHz steps. Our staff makes regular adjustments to keep our footprint small and ensure that we are neither subject to signal interference, nor the cause of interference for other users. Overall, we have made significant investments in equipment and staff time in our wireless infrastructure since 2010. We undertake these expenses because we recognize that our wireless is the lifeblood of our operations.

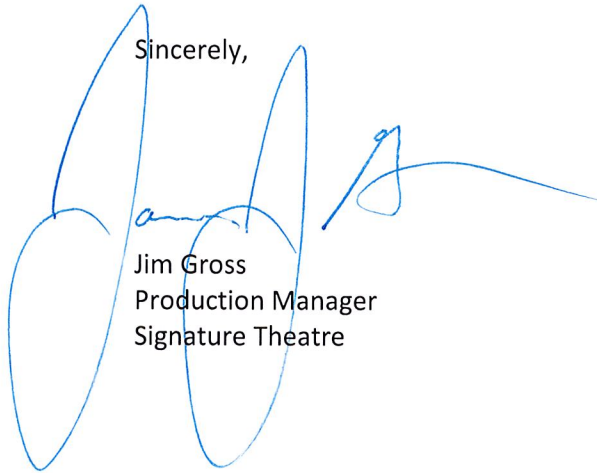
Now we are once again facing a spectrum change, this time effecting not just the microphones, but potentially all our UHF equipment. To date we have not been given clear guidance on what frequencies will be operable after the repacking, nor have manufactures produced quality products operating beyond the TV bands. I remain uncertain on how we will secure the funds for another major overhaul of equipment, especially given that the current equipment I would expect to last another five years of good use. I also worry about the lack of long term sustainability if we cannot have a reliable way to avoid both day to day signal interference and to know that we will not be denied to full use of our investment at some point in the future. For these reasons, I would urge the Commission to grant a Part 74 license if an applicant can provide certification of:

- A mission statement of providing performing arts to the public;
- A history of professional-quality wireless audio presentations to audiences without interference;
- Technical guidance and frequency coordination by qualified professionals;
- A commitment to register for protection only the frequencies, times, and locations actually needed; and
- A practice of keeping logs of all wireless microphone uses, including frequencies, for all performances.

As an arts organization, I would like to think that we return a great deal of value to our community, enriching people's minds and celebrating the human experience we all share. As a producer of new and exciting works of theater, I would like to think that we are returning value to our field and to the country as a whole in expanding the cannon of works that we all hold dear and treasure. As a manager at a small business, I take comfort in knowing we support hundreds of households each year, working families that are the backbone of the DC area community.

I appreciate that the Commission has sought Public Comment on this very important issue and respectfully endorse the Commission's proposal to expand Part 74 LPAS rules to accommodate performing arts organizations and educational institutions that use fewer than 50 wireless microphones. This proposal is a vital answer to challenges faced by the whole arts community and that benefits not just us, but the broader public as well. Thank you for your time.

Sincerely,

A handwritten signature in blue ink, consisting of a large, stylized 'J' followed by a horizontal line and a small flourish.

Jim Gross
Production Manager
Signature Theatre